

What is claimed is:

1. An image calibration method, comprising the steps of:

receiving, at an image calibration processing device, a
5 calibration request from a user terminal;

receiving, at the image calibration processing device, a
calibration object image photographed in accordance with an
instruction for calibration photographing;

performing a calibration process using the received
10 calibration object image;

receiving, at the image calibration processing device, a
subject image transmitted from the user terminal and
photographed by a camera used to photograph the calibration
object image;

15 performing a calibration on the subject image in accordance
with results of the calibration process to form a corrected
subject image; and

returning the formed corrected subject image from the image
calibration processing device to the user terminal.

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2. The image calibration method according to claim 1,

wherein the calibration object image and the subject image
are a common image in which a calibration object and a subject
are photographed at a time, and

25 the method further comprising the step of performing a
three-dimensional measurement on the subject using the
corrected subject image.

3. An image calibration method, comprising the steps of:

30 receiving, at an image calibration processing device, a

calibration request from a user terminal;

receiving, at the image calibration processing device, a calibration object image photographed in accordance with an instruction for calibration photographing;

5 performing a calibration process using the received calibration object image; and

transmitting results of the calibration process from the image calibration processing device,

wherein the user terminal performs a calibration on a subject
10 image photographed by a camera used to photograph the calibration object image, using the results of the calibration process transmitted from the image calibration processing device, to form a corrected subject image.

15 4. The image calibration method according to claim 3,

wherein the calibration object image and the subject image are a common image in which a calibration object and a subject are photographed at a time, and

wherein the user terminal is further configured to perform
20 a three-dimensional measurement on the subject using the corrected subject image.

5. The image calibration method according to any one of claim 1 through claim 4, including the step of:

25 transmitting the instruction for calibration photographing from the image calibration processing device to the user terminal.

6. The image calibration method according to any one of claim 1 through claim 5, including the step of:
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receiving at the image calibration processing device at least a focal length in the photographing and a model of the camera, or a focal length in the photographing and a size of an imaging device used in the photographing, together with the calibration
5 object image transmitted from the user terminal.

7. The image calibration method according to any one of claim 1 through claim 5, including the step of:

reading, at the image calibration processing device, data
10 necessary for the calibration process from photographing information affixed to the calibration object image transmitted from the user terminal,

the read data being used for the calibration process.

15 8. The image calibration method according to any one of claim 1 through claim 7,

wherein the results of the calibration process includes at least one of a principal point position, distortion data, and a focal length of a lens used in the photographing, of the camera
20 involved in the photographing of the calibration object image.

9. The image calibration method according to any one of claim 1 through claim 8, including the step of:

accumulating the calculated results of the calibration
25 process in a calibration database when the image calibration processing device performs the calibration process using the received calibration object image.

10. An image calibration method for use with an image
30 calibration processing device including a calibration database

in which results of a calibration process are accumulated according to a model of a camera, comprising the steps of:

receiving, at the image calibration processing device, a calibration request and a subject image from a user terminal,
5 together with a model of a camera used to photograph the subject image;

retrieving, from the calibration database, results of the calibration process corresponding to the received model of the camera;

10 performing a calibration on the subject image using the retrieved results of the calibration process to form a corrected subject image; and

returning the formed corrected subject image from the image calibration processing device to the user terminal.

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11. An image calibration method for use with an image calibration processing device including a calibration database in which results of a calibration process are accumulated according to a model of a camera, comprising the steps of:

20 receiving, at the image calibration processing device, a calibration request from a user terminal, together with a model of a camera used to photograph a subject image;

retrieving, from the calibration database, results of the calibration process corresponding to the received model of the
25 camera; and

transmitting the retrieved results of the calibration process from the image calibration processing device,

wherein the user terminal performs a calibration on the subject image using the results of the calibration process
30 transmitted from the image calibration processing device, to

form a corrected subject image.

12. An image calibration method, comprising the steps of:

transmitting a calibration request to an image calibration
5 processing device from a user terminal;

transmitting a calibration object image in accordance with
an instruction for calibration photographing from the user
terminal to the image calibration processing device;

transmitting a subject image photographed by a camera used
10 to photograph the calibration object image to the image
calibration processing device; and

receiving, at the user terminal, a corrected subject image
transmitted from the image calibration processing device and
formed by performing a calibration on the subject image in
15 accordance with results of a calibration process obtained using
the transmitted calibration object image.

13. An image calibration method, comprising the steps of:

transmitting a calibration request to an image calibration
20 processing device from a user terminal;

transmitting a calibration object image photographed by a
predetermined camera in accordance with an instruction for
calibration photographing from the user terminal to the image
calibration processing device;

25 receiving at the user terminal results of a calibration
process calculated by the image calibration processing device;
and

performing a calibration on a subject image photographed by
the camera used to photograph the calibration object image using
30 the received results of the calibration process, to form a

corrected subject image.

14. An image calibration processing device, comprising:

5 a receiving section for user terminal for receiving a use request for image calibration transmitted from a user terminal, a calibration object image photographed in accordance with an instruction for calibration photographing, and a subject image photographed by a camera used to photograph the calibration object image;

10 a calibration processing section for performing a calibration process using the calibration object image received by the receiving section for user terminal;

a corrected subject image forming section for performing a calibration on the subject image in accordance with results of the calibration process to form a corrected subject image; and

15 a transmission section for user terminal for transmitting the corrected subject image formed by the corrected subject image forming section to the user terminal.

20 15. The image calibration processing device according to claim 14, further comprising:

a display section for displaying the corrected subject image formed by the corrected subject image forming section.

25 16. The image calibration processing device according to claim 14 or claim 15,

wherein the calibration object image and the subject image are a common image in which a calibration object and a subject are photographed at a time, and

30 the device further comprising a three-dimensional

measurement section for performing a three-dimensional measurement on the subject using the corrected subject image.

17. An image calibration processing device, comprising:

5 a receiving section for user terminal for receiving a use request for image calibration transmitted from a user terminal and a calibration object image photographed in accordance with an instruction for calibration photographing;

a calibration processing section for performing a calibration
10 process using the calibration object image received by the receiving section for user terminal; and

a transmission section for user terminal for transmitting results of the calibration process calculated by the calibration processing section to the user terminal,

15 wherein the user terminal performs a calibration on a subject image photographed by a camera used to photograph the calibration object image using the results of the calibration process transmitted from the transmission section for user terminal, to form a corrected subject image.

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18. The image calibration processing device according to claim 17,

wherein the calibration object image and the subject image are a common image in which a calibration object and a subject
25 are photographed at a time, and

the user terminal is further configured to perform a three-dimensional measurement on the subject using the corrected subject image.

30 19. The image calibration processing device according to any

one of claim 14 through claim 18, further comprising:

an instruction retrieving section for retrieving the instruction suitable for the use request for image calibration received by the receiving section for user terminal,

5 wherein the transmission section for user terminal transmits the instruction retrieved by the instruction retrieving section to the user terminal.

20. The image calibration processing device according to any
10 one of claim 14 through claim 19,

wherein the receiving section for user terminal receives at least a focal length in the photographing and a model of the camera, or a focal length in the photographing and a size of an imaging device used in the photographing, together with the
15 calibration object image or the subject image transmitted from the user terminal.

21. The image calibration processing device according to any one of claim 14 through claim 19,

20 wherein the calibration processing section includes a photographing information reading section for reading data necessary for the calibration process from photographing information affixed to the calibration object image transmitted from the user terminal, the read data being used for the
25 calibration process.

22. The image calibration processing device according to any one of claim 14 through claim 21,

wherein the calibration processing section calculates
30 results of the calibration process including at least one of

a principal point position, distortion data, and a focal length of a lens used in the photographing, of the camera involved in the photographing of the calibration object image.

5 23. An image calibration processing device, comprising:

a receiving section for user terminal for receiving a calibration request and a subject image from a user terminal, together with a model of a camera used to photograph the subject image;

10 a calibration database in which results of a calibration process are accumulated according to a model of a camera;

a calibration process results retrieving section for retrieving, from the calibration database, results of the calibration process corresponding to the received model of the

15 camera;

a corrected subject image forming section for performing a calibration on the subject image transmitted from the user terminal using the retrieved results of the calibration process, to form a corrected subject image; and

20 a transmission section for user terminal for transmitting the formed corrected subject image to the user terminal.

24. An image calibration processing device, comprising:

25 a receiving section for user terminal for receiving a calibration request from a user terminal, together with a model of a camera used to photograph a subject image;

a calibration database in which results of a calibration process are accumulated according to a model of a camera;

30 a calibration process results retrieving section for retrieving, from the calibration database, results of the

calibration process corresponding to the received model of the camera; and

a transmission section for user terminal for transmitting the retrieved results of the calibration process to the user terminal,

wherein the user terminal is configured to perform a calibration on the subject image using the results of the calibration process transmitted from the transmission section for user terminal, to form a corrected subject image.

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25. An image calibration processing terminal, comprising:

a transmission section for processing device for transmitting a use request for image calibration, a calibration object image photographed in accordance with an instruction for calibration photographing, and a subject image photographed by a camera used to photograph the calibration object image, to an image calibration processing device;

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a receiving section for processing device for receiving a corrected subject image transmitted from the image calibration processing device and formed by performing a calibration on the subject image; and

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a display section for displaying the instruction and the corrected subject image received by the receiving section for processing device.

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26. An image calibration processing terminal, comprising:

a transmission section for processing device for transmitting a use request for image calibration, and a calibration object image photographed in accordance with an instruction for calibration photographing, to an image calibration processing

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device;

a receiving section for processing device for receiving results of a calibration process transmitted from the image calibration processing device; and

- 5 a corrected subject image forming section for performing a calibration on a subject image photographed by a camera used to photograph the calibration object image using the results of the calibration process received by the receiving section for processing device, to form a corrected subject image.